STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

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SECRETARY

North Carolina Board of Transportation
Environmental Planning and Policy Committee
Meeting Minutes for March 3, 2004

A meeting of the Environmental Planning and Policy Committee (EPPC) was held on March 3, 2004 at 8:30 a.m. in the Boardroom (Room 150) of the Transportation Building. Nina Szlosberg chaired the meeting. Other Board of Transportation members that attended were:

Conrad Burrell	Tom Betts
Nancy Dunn	Doug Galyon
Andy M. Perkins, Jr.	Bob Collier

Other attendees included:

Ehren Meister	Marcus Wilner	Rob Ayers
Sharon Lipscomb	Berry Jenkins	Greg Thorpe
Teresa Hart	Odessa McGlown	April Little
Tad Boggs	Jon Nance	Tina Johnson
Ken Pace	Mike Mills	Gail Grimes
Sandy Nance	Pat Ivey	Jay Swain
Ron Watson	M.L. Holder	Jeffrey Crow
Mary Pope Furr	Steve Claggett	Matt Wilkerson
Carl Goode	Roger Sheats	Don Voelker
Rob Hanson	John Sullivan	Max Price
Emily Lawton	Craig Deal	

Ms. Szlosberg called the meeting to order. The minutes were approved as presented. Before introducing the guest speakers for the meeting, Ms. Szlosberg acknowledged the photography displayed in the foyer outside the Boardroom. The photography highlights some of the environmental activities around the state, such as historic preservation efforts and mitigation projects, and will be rotated periodically. She encouraged those with suggestions to contact Julie Hunkins or Ehren Meister.

Ms. Szlosberg introduced the day's meeting topic by stating that the cooperative relationship between the NCDOT and the Office of State Archaeology is a prime example of the Governor's vision of "One North Carolina"—all state government agencies communicating and working together for the citizens of the state. She reiterated the importance of respecting the historically significant cultural resources in this state so that they can be used to promote the economy through business and tourism, as well as providing an educational association between the past and the future. Ms. Szlosberg introduced Dr. Jeffrey Crow, State Historic Preservation Officer from the Department of Cultural Resources and encouraged everyone to speak with him briefly after the meeting.

Carl Goode, Director of the Office of Human Environment, introduced the pertinent pieces of state and federal legislation that guide their activities in the area of historic preservation. This legislation includes

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the Historic Preservation Act of 1966, which includes Section 106 that requires review of historical resources when federal monies are used, and G.S. 121-12(a), which is essentially the same as Section 106 but is applied when state funds are being used. Section 4f of the USDOT Act of 1970 affects the Department's efforts when federal funds are used to acquire or use property that is on or eligible for the National Register of Historic Places. These laws have been challenged to the Supreme Court and upheld, and although very stringent, require compliant actions. Within the Office of Human Environment are two sections: Historic Architecture and Archaeology. Historic Architecture focuses on structures that are above ground, while Archaeology concentrates on those elements that are below ground with interests that correlate to both history and pre-history.

Within North Carolina, over 35,000 sites have been identified with more being added. The unit has been looking at a process to determine where these sites are located, and develop a model that will allow the Department to save time and money when determining locations. Mr. Goode invited participants to accompany the professional archaeologists as they perform their work in the field, then introduced Matt Wilkerson, Supervisor of the Archaeology Unit.

Mr. Wilkerson provided an overview of the work performed by his unit. The Archaeology Unit is responsible for taking into account the effects of the Department's projects on archaeological resources. This process involves many internal and external stakeholders who work together to identify ways to minimize or avoid impacts to archaeological resources. Many years ago, it was determined that the archaeologist was brought into the process too late. This late involvement was costly; therefore, steps were taken to reduce costs at the back-end of a project through avoidance of the resource by reviewing environmental data and ascribing a value for possible location of sites.

Mr. Wilkerson reviewed the types of projects on which the unit works and observed that although there are over four hundred Moving Ahead projects, TIP projects consume the majority of the unit's time because of the federal requirements. State requirements mirror federal requirements, but the unit has been able to streamline a review process for some of the state-funded projects. Through his slide presentation, Mr. Wilkerson described some of the unit's archaeological finds and discussed the issues and challenges of uncovering these finds. He referenced GPS equipment's sophistication that allows the user to identify the boundaries of sites found within project corridors. Precision of site boundaries is important because alignments are scaled in small increments and it is critical to the archaeologist's ability to specifically state whether a site is within or outside the alignment.

The GIS Archaeological Predictive Model, a new tool the unit is developing, uses geographic information systems and digitized site data that is overlaid one atop the other and is coupled with variables to predict where archaeological sites may occur throughout the state. Some of the benefits of the model are:

- The model's adaptability throughout a project's life-- the model has the ability to house project information and allow better decisions although there may be many alignments throughout a project's life.
- Projects may be scoped more effectively, with costs applied and timeframes for completion estimated, which will expedite this phase of the project.
- Credibility with resource agencies will increase, as they will see the same information on which the Department is basing its decisions.

Mr. Wilkerson discussed the State of Minnesota's approach to a similar model and their successes, and showed examples of their sensitivity mapping, which offers degrees of probability for archaeological presence. This level of sensitivity is consistent with the desires of North Carolina. Mr. Wilkerson

explained that this high-quality, high-end planning tool will not help to avoid each site or predict where each one will be, but it will assist in the development of alternatives for projects.

Minnesota built 35% more projects, reduced the number of MOA's by 60%, and recognized substantial timesaving. Additionally and most important, it reduced schedule and budget uncertainty by minimizing surprises. Mr. Wilkerson reiterated that the main purpose of the model is to allow the archaeologists to recognize what they may be facing with regard to archaeological resources.

Finally, the overall project goals for the Archaeology Unit are to digitize the cultural resource information for the mountain, piedmont, and coast; to update the Office of State Archeology site files and reduce the information to digital media; and develop this predictive model --the unit will then apply the model concept to the projects. The digitization work has been completed for a seven county area that is concentrated in the central part of the state. This area was chosen for a couple of reasons, including the number of sites in the area and the amount of digitized information that is currently available for that region.

Mr. Wilkerson introduced Mr. Steve Claggett, State Archaeologist from the Office of State Archaeology who spoke about the pre-history of the state, the type of information housed in his office, and the work his office is conducting on the digitization process. He provided a perspective of the digitization process from a cultural resources view when it comes to managing and providing access to all the information they have which other agencies need to make better use of. Mr. Claggett predicted that there are over a million resources in the state, although many have not been discovered. The Department of Cultural Resources possesses a tremendous amount of information that is already available but is not readily or easily accessed for use in planning and research.

Mr. Claggett stated that archaeologists are collectors of artifacts, maps and site reports and records. They have the benefit of time depth and perspectives of the information that they possess; they are able to look back, in at least a limited fashion, on over 12,000 years of history. They have much information and are faced with the hurdle of identifying ways to share it--this is where the GIS project will help everyone. Prior to this point and for the past 25 years, the Department of Cultural Resources did computerize maps and other information to a certain level and have led the charge nationally, along with a few other states. Today, the programs are outmoded and the GIS program lends itself to sharing and providing access where the other programs could not.

There is currently pilot project that includes over 1,000 archaeological sites in a five county area. The information from the pilot is converted to a new format and placed in a new system to create a test case to extend to the rest of the state. The accuracy of the information is paramount to the integrity of the decisions made. This is a cooperative effort and although it is archived at the Department of Cultural Resources, it needs to be made available to the Department of Transportation and other entities that may be interested. Similar to the Minnesota model, this project will include information on historic as well as prehistoric Native American archaeological resources.

Task One of the pilot project is complete and Matt Wilkerson feels strongly that with the seven-county core area, enough information is available to start Task Two. Task Two involves the statistical analysis of the information to generate probabilities of where sites may be located in relation to highway projects. Mr. Wilkerson reminded the participants that the information predicted in the analysis must be validated through fieldwork. Also on Task Two, graphical user interface will be developed and training will be conducted.

Mr. Wilkerson and Mr. Claggett entertained questions from the participants. To the question regarding the length of time analysis takes if unknowns are encountered on a project site, Mr. Wilkerson responded that fieldwork could take three to seven or eight weeks. Another was interested in the possibility of harvesting the finds of a site. Mr. Wilkerson responded that the sites are avoided if possible; however, if avoidance is not possible, the site is excavated and moved to a laboratory for analysis and lengthy technical reports are generated to show what the site consisted of. For many archaeological sites, that is enough under the regulatory statutes to show that compliance has been met.

To the idea of moving sites, he responded that there is no documentation to substantiate whether a site has been moved, although some have been recreated. A follow-on inquiry focused on the parties involved in the decision to begin earthmoving activities at a project site. Several parties make the decision as to whether ground disturbance can begin in areas where there is concern about the presence of an archaeological resource. The Office of State Archaeology is engaged in conversation and when federal funds are involved, as is the Federal Highway Administration.

Resources was the next point of discussion, as a member was interested in the current level of personnel and financial resources currently provided to support the state's mission. Mr. Wilkerson responded that there are eight full-time archaeologists on staff at NCDOT who are complemented by four to eight consulting firms. The annual budget was estimated to be $800,000; Mr. Wilkerson offered to provide actual data and stated that the Federal Highway Administration is a participating funding agency.

Ms. Szlosberg summarized the discussion by stating that a pattern has emerged. Before, all activities occurred on the back end. Now, systems are being developed and implemented to provide information early so that more informed decisions are made earlier in the process. She thanked those who attended the meeting and accepted the motion to adjourn.

The next meeting of the Environmental Planning and Policy Committee is scheduled for Wednesday, March 31, 2004 at 8:30 am in the Boardroom (Room 150) of the Transportation Building.

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